

What is Claimed is:

1. A method for using static analysis tools on a computer system to perform error analysis on source code files, comprising:

running a build program on the computer system to invoke compilers on the computer system that compile the source code files into executable code, wherein running the build program produces a build program output; and

running a static analysis tool management program on the computer system to invoke the static analysis tools and produce corresponding static error analysis results, wherein the static analysis tool management program accepts the source code and the build program output as inputs.

2. The method defined in claim 1 further comprising directing the build program output to a file that is used as an input by the static analysis tool management program.

3. The method defined in claim 1 further comprising directing the build program output to a file that is used as an input by the static analysis tool management program, wherein the file contains information on which static analysis tools to substitute for each compiler when the static analysis tools are invoked.

4. The method defined in claim 1 further comprising providing a user with an opportunity to

specify for the static analysis tool management program which compiler options should be ignored by the static analysis tools when performing static analysis on the source code.

5. The method defined in claim 1 further comprising providing a user with an opportunity to specify for the static analysis tool management program which additional compiler options are required by the static analysis tools when performing static analysis on the source code.

6. The method defined in claim 1 further comprising invoking a plurality of build management utilities with the build program as the build program is run, wherein the build program output includes output from the build management utilities.

7. A method for using static analysis tools on a computer system to perform error analysis on source code files that may be compiled on the computer system using compilers having corresponding compiler names that are invoked using a build program during a build process, comprising:

- creating a new directory on the computer system;

- modifying a search path on the computer system so that the new directory is included first in the search path;

- placing the static analysis tools into the new directory, wherein the static analysis tools in

the new directory are given names matching the compiler names; and

running the build program so that the static analysis tools with the names matching the compiler names are invoked.

8. The method defined in claim 7 comprising:
obtaining information from a user on compilation options for the compilers; and
using the information on the compilation options when invoking the static analysis tools by running the build program.

9. The method defined in claim 7 wherein running the build program comprises making calls to the compiler names.

10. The method defined in claim 7 wherein running the build program invokes both the compilers and the static analysis tools.

11. A method for using static analysis tools on a computer system to perform error analysis on source code files that may be compiled on the computer system using compilers that are invoked using a build program during a build process, wherein the computer system has an operating system, the method comprising:

running the build program on the computer system;

running a monitoring program on the computer system while the build program is running to

compile the source code files, wherein the monitoring program monitors activity between the build program and the operating system; and

using output from the monitoring program to run the build program with the static analysis tools substituted for the compilers so that the static analysis tools perform static error analysis on the source code files.

12. The method defined in claim 11 further comprising gathering information from a user as to which compilers are used during the build process and which compilation options are to be used by the static analysis tools.

13. The method defined in claim 11 further comprising filtering the output from the monitoring program to remove compiler option commands.

14. The method defined in claim 11 wherein running the monitoring program comprises running a custom monitoring program that uses operating system debugging commands to monitor the activity between the build program and the operating system.

15. A method for using static analysis tools on a computer system to perform error analysis on source code files that may be compiled on the computer system using compilers that are invoked using a build program during a build process, wherein the computer system has an operating system comprising:

redefining operating system commands in the operating system; and

running the build program on the computer system, wherein the redefined operating system commands cause the build program to invoke the static analysis tools in place of the compilers so that the error analysis on the source code files is performed.

16. The method defined in claim 15 further comprising using user-specified information on the compilers and compiler options during invocation of the static analysis tools.

17. The method defined in claim 15 wherein redefining the operating system commands comprises redefining operating system process creation and execution commands by placing modified versions of the operating system creation and execution commands on the computer system and by instructing the operating system to load the modified versions of the operating system process creation and execution commands.

18. The method defined in claim 15 wherein redefining the operating system commands comprises using a new kernel module containing modified functions.